



Environmental problems of the Indonesian-Australian region: natural and anthropogenic disasters.

Ikram KERIMOV¹, Seymour KERIMOV²,

¹Scientific Center of Seismology, Presidium of the National Academy of Sciences, Azerbaijan; ²Seismotech Globe B. V., Netherlands

The recent increase in number and strength of disasters in this region - earthquakes, fires, floods, hurricanes, volcanic eruptions, fluctuations in ocean bottom shape - is most clearly reflected in the seismic data. Analysis of the earthquakes with $M = 5.5$ and above, occurred from 1920 until the present time, has revealed very sharp increase in their quantity in the second half of the twentieth century, raising doubts about their natural origin. We have shown that similar seismicity and other anomalies are caused by nuclear explosions that shook the planet for decades, with the most negative impact caused by the French polygon - Mururoa Atoll, located in mentioned region, as the aqueous medium significantly increases their destructive impact. However, the sharper surge in seismic activity is observed again since 2000. It reflects that negative processes of self-oscillating mode, which associated with increasing solar activity, worsened even after the explosions' termination. Among other typical, hazardous and causing huge damage disasters, there are strong fires, rapidly occurring over large areas which have not previously been observed. The deformation processes lead to microcracks in the soil and emanation of ground gases including methane, which inflames in contact with oxygen in the summer heat, occurs along them. The causes of the fires at this territory are the artificial deformations of the soil, which significantly intensified now by global environment disruptions. Thus, the medium of the Australian-Indonesian region was extremely excited artificially, and it requires special measures to bring it back to its natural stat.